

Title (en)  
POLYTRIMETHYLENE TEREPHTHALATE FIBER AND PROCESS FOR PRODUCING THE SAME

Title (de)  
POLYTRIMETHYLENTEREPHTHALATFASER UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)  
FIBRE DE POLYTRIMETHYLENE TEREPHTALATE ET SON PROCEDE D'OBTENTION

Publication  
**EP 1209262 A1 20020529 (EN)**

Application  
**EP 00944412 A 20000712**

Priority  
• JP 0004677 W 20000712  
• JP 19716099 A 19990712  
• JP 2000027690 A 20000204

Abstract (en)  
A polytrimethylene terephthalate fiber, a method for producing the same, a cheese-shaped package formed thereof, a false-twist textured yarn using the fiber and a fabric using the false-twist textured yarn are provided. The fiber is composed of 90 mol% or more of trimethylene terephthalate repeating units having a density in a range from 1.320 to 1.340 g/cm<sup>3</sup>, a birefringence in a range from 0.030 to 0.070, a peak value of thermal stress in a range from 0.01 to 0.12 cN/dtex, a boiling water shrinkage in a range from 3 to 40%, and an elongation at break in a range from 40 to 140%. The inventive polytrimethylene terephthalate fiber has both of proper crystallinity and orientation and is free from the package tightness due to yarn shrinkage and the bulge. The inventive fiber can be produced on an industrial scale.

IPC 1-7  
**D01F 6/62**; **D01F 6/92**; **D06M 15/53**; **D06M 13/188**; **D02G 3/00**; **D03D 15/00**

IPC 8 full level  
**D01F 6/62** (2006.01); **D01F 6/92** (2006.01)

CPC (source: EP KR US)  
**D01F 6/62** (2013.01 - EP KR US); **D01F 6/92** (2013.01 - EP US); **B65H 2301/5144** (2013.01 - EP US); **B65H 2515/12** (2013.01 - EP US); **Y10T 428/29** (2015.01 - EP US)

Cited by  
US7005093B2; EP1336674A4; EP1142955A4; EP1219733A4; US6740270B2; US6815060B2; US6680353B1; EP1192302B2

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**EP 1209262 A1 20020529**; **EP 1209262 A4 20040616**; **EP 1209262 B1 20061102**; AT E344338 T1 20061115; AU 5852800 A 20010130; BR 0012361 A 20020611; CN 100436674 C 20081126; CN 1311111 C 20070418; CN 1358242 A 20020710; CN 1540049 A 20041027; DE 60031691 D1 20061214; DE 60031691 T2 20070830; ES 2275522 T3 20070616; HK 1047775 A1 20030307; HK 1047775 B 20070907; KR 100437310 B1 20040625; KR 20020025951 A 20020404; MX PA01013156 A 20030820; TR 200200051 T2 20020722; TW 522179 B 20030301; US 6620502 B1 20030916; WO 0104393 A1 20010118

DOCDB simple family (application)  
**EP 00944412 A 20000712**; AT 00944412 T 20000712; AU 5852800 A 20000712; BR 0012361 A 20000712; CN 00809475 A 20000712; CN 200410042003 A 20000712; DE 60031691 T 20000712; ES 00944412 T 20000712; HK 02109314 A 20021224; JP 0004677 W 20000712; KR 20027000211 A 20020107; MX PA01013156 A 20000712; TR 200200051 T 20000712; TW 89113788 A 20000711; US 3041502 A 20020110